

Motorola starts GaAs-on-Si company; invests in IQE

In mid-November epiwafer foundry IQE plc (Cardiff, Wales UK) signed a series of agreements with Motorola Inc, including the first licensing agreement for the manufacture of its GaAs-on-silicon technology (which includes a limited period of exclusivity for wafers up to 6" in diameter).

For the past year IQE has been involved with Motorola in its development of compound-on-silicon technology. Under a further agreement, in first-half 2002 IQE is to supply Evaluation Program wafers to enable potential customers to gather information as a pre-cursor to "target new designs, re-map existing products and explore other new options". Under the Customer Evaluation Agreement, IQE will be allowed to enter into evaluation programmes with customers of IQE and Motorola.

Since its announcement in September 2001 (see Issue 8, page 34), Motorola Labs has continued to improve the technology and (with IQE) the manufacturing processes, including the quality and uniformity across large wafers.

To commercialize the technology Motorola (which has filed more than 280 related patent applications) has created the Thoughtbeam Inc, led by Motorola Inc corporate vp Padmasree Warrior as general manager (previously chief technology officer and director of the 1100-member central R&D organization for Motorola Semiconductor Products Sector). He will report to Edward D Breen, president of the Networks Sector and president- and chief operating officer-elect of Motorola.

"We plan to license it broadly," said Warrior. "In addition to the commercial license, we have also now authorized IQE to produce and supply GaAs on

silicon evaluation wafers for our Evaluation Program."

Initially, IQE will make GaAs-on-Si wafers for customer evaluation purposes (in first-half 2002) before rolling out to full-scale manufacturing.

The evaluation program will enable potential customers to assess the technology and gather their own information as a precursor to target new designs, re-map existing products and explore other new options. "We have been working with IQE for nearly a year now," said Warrior.

The two have also entered into a separate Services and Cooperation Agreement through which Motorola will purchase development services from IQE, opening the way for IQE to start to generate development revenues in 2002.

To support commercialization, Motorola is making an equity investment of US\$10m in IQE and being granted warrants to subscribe for a further US\$10m over the next 5 years.

Also, to secure the investment and ensure funding is available to exploit licensing opportunities, a £14m equity drawdown facility over the next 3 years has been set up with two institutional investors.

IQE also proposes to raise up to about £20m through an Open Offer of 13,152,247 new Ordinary Shares.

* IQE plc's Q3/2001 sales (to end-September) were £8.234m (up 28% on a year ago but down 37% on Q2 since a drop for opto could not be offset by new development programs).

Sales for the nine months were £34.351m (up 75% on a year ago), due to new reactors brought on-line in second-half 2000, a full nine months contribution from Wafer Technology

and initial sales from IQE Silicon Compounds (for which customer qualification programs have been completed and first pilot production orders received).

Wafer Technology's profit margins were still hit by high gallium prices, although these have now fallen back to historic levels.

R&D spending was £1.602m, 19.5% of sales (up from Q2's £0.757m, 5.8%), particularly for InGaP HBTs, InP HBTs (now designed into several new customer products), 1.3 µm VCSELs (which have now been demonstrated), Avalanche Photodiodes (for which a new product has been launched) and GaAs-on-silicon.

Motorola cuts 9,400 more jobs but invests in compounds

In mid-December Motorola Inc said it still expects to achieve its October estimate for Q4/2001 sales of flat to 3% up on Q3's US\$7.24bn. For 2002 Motorola expects sales 5-10% down on 2001. To save about US\$865m in 2002 (and US\$1.1bn annually thereafter), Motorola is cutting 9,400 more jobs² this year (8.5% of its staff, totalling 50,000 or almost one third from a peak of about 150,000 in August 2000 to 102,000).

This includes about 4,000 of the Semiconductor Products Sector's 30,000 staff in a move towards a new "asset

light" business model. It will also cut 20% of its 600 corporate officers at the vp level and above.

Motorola aims to outsource 50% of its CMOS silicon chip manufacturing, while "continuing to invest in the specialized technologies, like GaAs and SiGe and other III-V compound materials that are unavailable for outsourcing, which gives us differentiation," says Galvin.

Motorola's boosted its share of handset sales by 4% in 2001 and is now aiming for a 25% share.

Agilent doubles job cuts

For **Agilent Technologies Inc** (Palo Alto, CA, USA) sales for fiscal Q4 (to end-October) were US\$1.6bn (down 47% on a year ago and 12% sequentially). Orders were US\$1.2bn (down 56% and 8%). Cancellations were about US\$250m (similar to the previous quarter).

Full-year sales were US\$8.4bn (down 10%) and orders US\$6.4bn (down 39%).

For Q1 Agilent expects a slight drop in cancellations but sales of just US\$1.25-1.4bn.

Agilent is consolidating facilities, further reducing IT costs, and cutting back on project materials and tooling. After a first cut of 4,000 jobs in August, it is cutting 4,000 more - totalling 8,000 (18%) by mid-2002 - to save US\$700m annually at a cost of US\$175m.

Pay reductions of 10% will start for senior management teams in the first quarter and reductions of 5% will be introduced for other staff in the second quarter.